APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/533,467	03/23/2000	Jerry D. Burchfiel	99-442	9907

			EXAMINER
32127	7590	06/14/2004	FERRIS, DERRICK W

VERIZON CORPORATE SERVICES GROUP INC.
C/O CHRISTIAN R. ANDERSEN
600 HIDDEN RIDGE DRIVE
MAILCODE HQEO3H14
IRVING, TX 75038

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2004*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 March 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   **Claims 1-23** as amended are still in consideration for this application. Applicant has

amended claims **1, 7, 11, 17, 18, and 21-23**.

2.   Examiner **withdraws** the claim objection(s) for Office action filed **11/19/03**. Examiner

thanks applicant for making the necessarily corrections.

3.   Examiner **withdraws** the drawing objection(s) for Office action filed **11/19/03**.

Examiner thanks applicant for making the necessarily corrections.

Examiner does **not withdraw** the anticipated rejection to *LeDuc* for Office action filed **11/19/03**.

In addressing applicant's arguments in the response filed **03/17/04**, at issue is the comparison or

in particular looking for inconsistencies as recited in the claims necessitated by amendment.

Examiner respectfully disagrees with applicant's characterization of the *LeDuc* reference and

instead agrees with the previous examiner's interpretation of the claims. Specifically, *LeDuc*

performs a comparison at the processor or management device via the logical operation such as

the OR operation. Applicant argues that the OR operation is not concerned with whether the bits

are different but is only concerned with whether one of the given conditions of the ports is true

(see applicant's remarks at top of page 14). Examiner notes an OR operation is example of an

inconsistency. In particular, if one or the other status message is true then an alarm is generated

in reference to column 4, lines 30-32. Thus if one status is true then the other does not have to

be true which demonstrates inconsistency. However, for the sake of argument, *LeDuc* teaches

that different operations are possible, see e.g., column 5, lines 39-46 (i.e., other operation could

alternatively be used to calculate the state of the transmission link). Thus if an XOR (i.e.,

Exclusive-OR) operation were used, then either A or B would have to be true but not both which also teaches an inconsistency. It is also important to note that *how* entries are inconsistent is not further recited in the claims.

The examiner recommends that the applicant instead amend the claims to further recite the attributes or properties of the router status information; specifically that the router status information contain <u>a list of all neighboring routers</u>. Currently, the claims recites that the attributes or properties of router status information contain information that is indicative of the status of the communications link, see e.g., claim 1, lines 6-7. This information is taught by *LeDuc* as part of the port information shown in figure 2. Specifically, *LeDuc* teaches sending the status of each port which is indicative of the status of the communications link, see e.g., column 5, lines 48-55. Thus the port information taught by *LeDuc* does not include the further limitation of a list of all neighboring routers. <u>Should applicant include the above-mentioned limitation, then the examiner would withdrawn the rejection. However, as the current rejection is made final, the newly added limitation would require additional searching/consideration thus requiring the applicant to file a continuation.</u>

4.   Examiner does **not withdraw** the obviousness rejection to *LeDuc* in view of *Sundaram* and *LeDuc* in view of *Kight* for Office action filed **11/19/03**. In addressing applicant's arguments in the response filed **03/17/04**, see similar arguments above for the anticipated rejection.

Specification

5.   The abstract of the disclosure is objected to because the abstract is over 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

7.   **Claims 1-4, 7-14, 17 and 20-23** are rejected under 35 U.S.C. 102(e) as being anticipated

by U.S. Patent No. 6,484,202 B1 to *LeDuc et al* ("*LeDuc*").

Regarding **Claims 1 and 2**, *LeDuc* teaches: (Referring to Fig. 1) "Processor 116

calculates the status of transmission link 108 based on the first status of first port 105 and the

second status of second port 107. Memory 114 is effective in storing the status of transmission

link 108." (Col. 2, lines 59-65) (An apparatus for detecting ..., comprising a memory for storing

status database; and a processor which receives a first signal corresponding to a first router ...),

"The management device uses these status values to calculate the status of the transmission link

between the first port and the second port." (Col. 4, lines 56-58) (compares the receivedfirst

signal ... with a second ... "An alarm can be sent when the status is calculated to be a

predetermined value, such as an out-of-service alarm." (Col. 2, lines 21-23) (issues an alarm

signal ... contain non-complementary router status.), Still further, the status can be stored at the

management device.

Regarding **Claim 23**, please refer to response to claim 1, above. Moreover, *LeDuc*

discloses: "This stored status can then be used for comparison, calculations, or display at a later

time."(Col. 4, lines 41-44) (means for storing a router status database, and means for (i) receiving

a first signal ...)

Regarding **claims 3 and 13**, these limitations are inherent because in any processing

environment a stabilization time is required for real time events to ensure that the reported

situations are not sporadic and to ensure that network delays have not skewed the reports.

Regarding **claims 4, 8, and 14**, *LeDuc* teaches: "Fig. 3 depicts a flowchart 300 for

calculating the status of a transmission link ..." (col. 3, lines 57-58) Fig. 3 clearly describes the

derivation of link status based on the first status and the second status received from the end

devices. (the processor performs the signal comparison... if both the first and second signals

indicate the link between ... is operational)

Regarding **claim 9**, *LeDuc* teaches: In Fig. 1, control lines from the first device and the

second device bring information to the computer and the computer transmits alarm signals to

output devices. "For example, if the status is determined to be out-of-service, an alarm can be

sent to an operator to alert the operator of the out-of-service state." (a receiver for receiving the

router update .... and a transmitter for transmitting the alarm signal.)

Regarding **claims 7 and 10**, please refer to responses to claim 1 and claim 9. (from

another router and characterizing the link between the router and the compromised router...

Regarding **claims 11 and 12**, please refer to responses to claim 1 and claim 2.

Regarding **claims 17 and 20**, please refer to response to claim 1 above. Moreover, *LeDuc*

teaches: "Still further, the status can be stored at the management device or in memory coupled

to the management device. This stored status can then be used for comparisons, calculations, or

display at a later time." (Col. 4, lines 42-44) (storing a router database ... comparing the received

signal with the entry stored in the router database...)

Regarding **claims 21 and 22**, please refer to response to claim 1 above. Moreover, Fig. 1

in *LeDuc* depicts the processor and memory components that perform functions such as

comparison of status information received from devices at the two ends of a link. (A storage

medium containing computer readable code... one or more router processors to perform...)

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

9.   **Claim 5, 6, 15, 16, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6,484,202 B1 to *LeDuc et al* ("*LeDuc*") in view of U.S. Patent No.

6,564,341 B1 to *Sundaram et al.* ("*Sundaram*").

Regarding **claims 5 and 15**, *LeDuc* does not detail processor actions. However,

Sundaram et al., which details some of the conventional fault monitoring schemes, describes the

interactions between two devices as shown in Fig. 11. "Meanwhile, the NMS 12 monitors the

time-out clock and waits for receipt of a response to the recovery poll request. If a response

notification is received prior to expiry of the timeout period, ... " (col. 18, lines 10-14) (waits a

predetermined period of time, receives renewedfirst and second signals ...), "the NMS extracts

the TXNSN of the received notification and compares it with TxNSNs of the previously received

notifications (col. 17, 53-55) (re-performs the signal comparison ...). In a networking situation

when failure reporting and monitoring functions are considered, it would have been obvious to a

person with ordinary skills to ensure fault conditions persist by waiting, receiving new fault

reports, and comparing those with previously received information.

Regarding **claims 6 and 16**, *LeDuc* does not detail processor actions. However,

Sundaram et al., which details some of the conventional fault monitoring and reporting

.functions, describes sending alarm notifications between two network elements: "Fig. 7

schematically illustrates EMS and NSM behavior following detection of an alarm event. In

accordance with an embodiment of the present invention, the following steps are performed: The

EMS agent 6 formulates and send the Notification with all relevant fields." (col. 16, lines 11-16)

(wherein the processor issues the alarm signal in a third router status... to at least the second

router). In a networking situation when failure reporting functions are managed, it would have

been obvious to a person with ordinary skills to send alarm signals in a message to a number of

local and end devices, including routers and network management devices.

Regarding **Claim 18**, *LeDuc* does not detail processor actions. However, *Sundaram et al.*,

which details some of the conventional status updating mechanisms describes: "The NMS 12 can

issue a series of polling requests to the active alarm table 26, in order to retrieve outstanding

alarm data from any NE 4 in the EMS domain 8. When an alarm condition is cleared, the

corresponding entry is removed from the table 26 and an entry is added when a new alarm is

raised. The EMS agent 6 operates to ensure that table 26 is accurate and up-to-date after EMS

agent 6 restarts, and the index values need not be preserved over restarts. However, it is

preferable to provide the same notification IDs for all outstanding alarms after restarts." (col. 14,

lines 55-65) (processor issues a router update). In a networking situation when status updating

functions are undertaken, it would have been obvious to a person with ordinary skills to issue

updates if the database entry contained complementary link status information.

10.   **Claim 5, 6, 15, 16, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6,484,202 B1 to *LeDuc et al* (*"LeDuc"*) in view of U.S. Patent No.

5,623,357to *Kight et al.* (*"Kight"*).

Regarding **Claim 19**, *LeDuc* does not describe an alarm broadcast function. However,

Kight et al. teaches: "If user programmed thresholds are violated, then the task broadcasts an

alarm message." (Col. 11, lines 21-22) (broadcasting the alarm signal). Thus the examiner

purposes to modify *LeDuc* to further include broadcasting an alarm signal. Examiner notes that

it would have been obvious to one skilled in the art prior to applicant's invention to broadcast

and alarm signal. In particular, one skilled in the art would have been motivated to perform the

above-limitation since routing and networking situations broadcast functions are common.

Conclusion

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225.

The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF

CHI PHAM
SUPERVISORY PATENT EXAMINER
ᴏᴏʏ ᴄᴇɴᴛᴇʀ 2600 6/10/14